

AMENDMENTS TO THE CLAIMS

The Listing of Claims will replace all prior versions and listings of claims in the present patent application:

Listing of Claims

Claims 1-7. (Cancelled)

8. (Currently Amended) An apparatus for reducing transmission overhead in a communication system, comprising:

a processor for generating a data origination message, said data origination message initiating a data communication with a receiving station, said processor further for transmitting information needed to construct data network header information at said receiving station, and for subsequently formatting information to be transmitted in accordance with a pre-determined format, said pre-determined format lacking data network header information; and

a transmitter for transmitting said data origination message, said information needed to construct data network header information at said receiving station, and said formatted information to said receiving station,

wherein said processor is further for transmitting at least one full datagram to said receiving station, and further for removing said data network header information from subsequent datagrams prior to formatting if the apparatus receives a message indicating that the transmitter should begin transmitting information without data network header information.

Claims 9-45 (Cancelled)

46. (Currently Amended) An apparatus for reducing transmission overhead in a communication system, comprising:

means for generating a data origination message, said data origination message initiating a data communication with a receiving station;

means for transmitting information needed to construct data network header information at said receiving station;

means for formatting information to be transmitted in accordance with a pre-determined format, said pre-determined format lacking data network header information;

means for transmitting said data origination message, said information needed to construct data network header information at said receiving station, and said formatted information to said receiving station; and

means for transmitting at least one full datagram to said receiving station, and further for removing said data network header information from subsequent datagrams prior to formatting if the apparatus receives a message indicating that the means for transmitting information should begin transmitting information without data network header information.

47. (Currently Amended) A method for reducing transmission overhead in a communication system, comprising:

generating a data origination message, said data origination message initiating a data communication with a receiving station;

transmitting information needed to construct data network header information at said receiving station;

formatting information to be transmitted in accordance with a pre-determined format, said pre-determined format lacking data network header information; and

transmitting said data origination message, said information needed to construct data network header information at said receiving station, and said formatted information to said receiving station;

transmitting at least one full datagram to said receiving station, and further for removing said data network header information from subsequent datagrams prior to formatting if a message is received indicating information without data network header information should be transmitted.

48. (Currently Amended) A computer-readable medium embodying means for implementing a method for reducing transmission overhead in a communication system, the method comprising:

generating a data origination message, said data origination message initiating a data communication with a receiving station;

transmitting information needed to construct data network header information at said receiving station;

formatting information to be transmitted in accordance with a pre-determined format, said pre-determined format lacking data network header information; and

transmitting said data origination message, said information needed to construct data network header information at said receiving station, and said formatted information to said receiving station;

transmitting at least one full datagram to said receiving station, and further for removing said data network header information from subsequent datagrams prior to formatting if a message is received indicating information without data network header information should be transmitted.

49. (Currently Amended) An apparatus for reducing transmission overhead in a communication system, comprising:

a processor for generating a data origination message, said data origination message initiating a data communication with a receiving station, said processor further for transmitting information needed to construct data network header information at said receiving station, and for subsequently formatting information to be transmitted in accordance with a pre-determined format, said pre-determined format lacking data network header information;

a receiver for receiving an acknowledgement from said receiving station; and

a transmitter for transmitting said formatted information, after receiving said acknowledgement, to said receiving station,

wherein said processor is further for removing said data network header information prior to formatting said information; and

wherein said processor is further for transmitting at least one full datagram to said receiving station, and further for removing said data network header information from subsequent datagrams prior to formatting if the apparatus receives a message indicating that the transmitter should begin transmitting information without data network header information.

50. (Currently Amended) A system for reducing transmission overhead in a communication system, comprising:

a communication device, comprising:

a first processor for generating a data origination message, said data origination message initiating a data communication with a receiving station, said first processor further for subsequently transmitting information needed to construct datagrams at said receiving station, and for subsequently formatting information to be transmitted in accordance with a pre-determined format, said pre-determined format lacking data network header information;

a transceiver for transmitting said data origination message, said information needed to construct datagrams at said receiving station, and said formatted information to a receiving station, wherein said information needed to construct datagrams at said receiving station is transmitted in a data frame subsequent to said data origination message; and

said receiving station, comprising:

a transceiver for receiving said information needed to construct datagrams at said receiving station and for providing said information needed to construct datagrams at said receiving station to a second processor;

said second processor for receiving said information needed to construct datagrams at said receiving station, for storing said information needed to construct datagrams at said receiving station in a storage device, and for configuring a data packet generator to generate datagrams to a destination data network address across a data network; and

said data packet generator for generating datagrams in accordance with at least one data network protocol, each of said data network protocols having a respective header associated with it, each of said headers comprising information obtained from at least said storage device; and

wherein said first processor is further for transmitting at least one full datagram to said receiving station, and further for removing said data network header information from subsequent datagrams prior to formatting if the communication device receives a message indicating that the transceiver should begin transmitting information without data network header information.

51. (Currently Amended) A method for reducing transmission overhead in a communication system, comprising:

generating a data origination message, said data origination message initiating a data communication with a receiving station;

transmitting said data origination message to said receiving station;

transmitting information needed to construct data network header information at said receiving station;

formatting information to be transmitted to said destination device in accordance with a pre-determined data format, said pre-determined data format lacking data network header information

transmitting said formatted information to said receiving station; and

wherein said transmitting comprises transmitting at least one full datagram to said receiving station, and removing said data network header information from subsequent datagrams prior to formatting if a message is received indicating information without data network header information should be transmitted.

52. (Currently Amended) A method for reducing transmission overhead in a communication system, comprising:

generating a data origination message, said data origination message initiating a data communication with a receiving station;

transmitting said data origination message to said receiving station;

transmitting information needed to construct data network header information at said receiving station;

formatting information to be transmitted to a destination device in accordance with a pre-determined data format, said pre-determined data format lacking data network header information;

receiving an acknowledgement from said receiving station; and

transmitting said formatted information to said receiving station after receiving said acknowledgement,

wherein said acknowledgement indicates that a data packet generator at said receiving station is configured for sending information to said destination device; and

wherein said transmitting comprises transmitting at least one full datagram to said receiving station, and removing said data network header information from subsequent datagrams prior to formatting if a message is received indicating information without data network header information should be transmitted.

53. (Currently Amended) A method for reducing transmission overhead in a communication system, comprising:

generating a data origination message, said data origination message initiating a data communication with a receiving station;

transmitting said data origination message to said receiving station;

transmitting information needed to construct datagrams at said receiving station; formatting information to be transmitted to said destination device in accordance with a pre-determined data format, said pre-determined data format lacking data network header information;

transmitting said formatted information to said receiving station,

wherein said information needed to construct datagrams at said receiving station is transmitted in a data frame subsequent to said data origination message;

receiving said information needed to construct datagrams at said receiving station by said receiving station;

storing said information needed to construct datagrams at said receiving station in a storage device;

configuring a data packet generator to generate datagrams in accordance with said information needed to construct datagrams at said receiving station, each of said datagrams comprising one or more data network headers, said data network headers constructed using at least said information stored in said storage device;

receiving said formatted information from said communication device to be transmitted across said data network;

constructing datagrams in accordance with said data packet generator configuration;

sending said datagrams across said data network to a destination data network address; and

wherein said transmitting comprises transmitting at least one full datagram to said receiving station, and removing said data network header information from subsequent datagrams prior to formatting if a message is received indicating information without data network header information should be transmitted.

54. (Currently Amended) A method for reducing transmission overhead in a communication system, comprising:

receiving a data origination message from a communication device, said data origination message initiating a data communication with a receiving station;

transmitting a message to the communication device, said message indicating information without data network header information should be transmitted;

receiving information needed to construct datagrams at said receiving station;

storing said information needed to construct datagrams at said receiving station in a storage device;

configuring a data packet generator for transmitting datagrams across a data network to a destination device, said datagrams formatting in accordance with at least one data network protocol, said datagrams each comprising at least one data network header, said at least one data network header formed from information stored in said storage device;

receiving formatted information from said communication device to be transmitted to said destination device, said formatted information lacking data network header information;

constructing datagrams in accordance with said data packet generator configuration;

transmitting said datagrams to said destination device across said data network;

wherein said information needed to construct datagrams at said receiving station is transmitted in a data frame subsequent to said data origination message; and

wherein said receiving formatted information comprises receiving at least one full datagram, and said data network header information is removed from subsequent datagrams prior to formatting in accordance with the message previously transmitted to the communication device.